UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,917	08/20/2003	Matthew G.A. McConnell	07117.105015	9581

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KING & SPALDING LLP
191 PEACHTREE STREET, N.E.
45TH FLOOR
ATLANTA, GA 30303-1763

EXAMINER
BUI, BING Q

ART UNIT	PAPER NUMBER
2642	

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

> A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
> - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
> - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
> - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 August 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date 10/14/03; 11/17/03; 11/21/03; 12/11/03; 3/12/04; 5/26/04; 10/29/04; 11/19/04; 5/4/05 and 6/27/05.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-38 are pending in the application for examination, wherein claims 1, 19,

27, 34 and 36 being independent.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3.   Claims 1-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Shaio

(US Pat No. 5,299,260).

Regarding claim 1, referring to figures 1 and 4-5, Shaio teaches a method to

select an agent from a group of agents to service a contact at a contact center

comprising:

obtaining performance data for each agent in the group of agents (see figures 1

and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8);

representing the performance data on a performance scale for each agent in the

group of agents (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln

8);

comparing the performance dal on the performance scale for a first agent in the group of agents and a second agent in the group of agents (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8); and

responsive to the comparing step, selecting the first agent to service the contact (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 2, referring to figures 1 and 4-5, Shaio teaches the method of Claim 1, further comprising the steps of maintaining a current record of qualifications of each agent in the group of agents; obtaining contact parameters that describe the contact; and comparing at least some portion of the current record of qualifications of at least one agent in the group of agents to the contact parameters, and wherein the selecting step comprises responsive to the comparing the performance data step and the comparing qualifications step, selecting the tirst agent to service the contact (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 3, referring to figures 1 and 4-5, Shaio teaches the method of Claim 2, wherein the maintaining step comprises storing the current record of qualifications of each agent in the group of agents in a database on a computer-accessible medium; and updating the current record as soon as new qualification data is available, and the method further comprises the step of accessing the current record of qualifications of the at least one agent in the group following the updating step, and the comparing step comprises comparing qualifications accessed in the accessing step to the contact parameters (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 4, referring to figures 1 and 4-5, Shaio teaches the method of

Claim 3, wherein the qualifications comprise at least one of personality, cognitive ability,

and skills and competencies (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln

15-col. 11, ln 8).

Regarding claim 5, referring to figures 1 and 4-5, Shaio teaches the method of

Claim 1, wherein the representing step comprises representing the performance data of

each agent in the group of agents on a performance scale that comprises at least two

performance indicators, and wherein the comparing step further comprises weighing

one performance indicator of the at least two performance indicators more heavily than

the other performance indicator (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10,

ln 15-col. 11, ln 8).

Regarding claim 6, referring to figures 1 and 4-5, Shaio teaches the method of

Claim 1, wherein the performance scale comprises at least two performance indicators,

and wherein the comparing step further comprises weighing one performance indicator

of the at least two performance indicators more heavily than the other performance

indicator on the basis of at least one of call volume, management input, operational

goals, and compliance statistics (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10,

ln 15-col. 11, ln 8).

Regarding claim 7, referring to figures 1 and 4-5, Shaio teaches the method of

Claim 5, further comprising the step of determining a state of the contact center, and

wherein the comparing step further comprises weighing one performance indicator of

the at least two performance indicators more heavily than the other performance

indicator as a function of the state (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 8, referring to figures 1 and 4-5, Shaio teaches the method of Claim 7, wherein the step of determining a state comprises acquiring current activity from an activity monitor (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 9, referring to figures 1 and 4-5, Shaio teaches the method of Claim 1, further comprising the step of determining a contact center state, and wherein the comparing step further comprises weighing the performance of the first agent and the second agent on the basis of the contact center state (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 10, referring to figures 1 and 4-5, Shaio teaches the method of Claim 9, wherein the step of determining the contact center state comprises forecasting the contact center sute on the basis of historical state, and wherein the comparing step further comprises weighing the performance of the first agent and the second agent on the basis of the forecasted contact center state (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 11, referring to figures 1 and 4-5, Shaio teaches the method of Claim 9, wherein the step of determining the contact center state comprises forecasting the contact center state on the basis of a current state, and wherein the comparing step further complises weighing the performance of the first agent and the second agent on

the basis of the forecasted contact center state (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 12, referring to figures 1 and 4-5, Shaio teaches the method of Claim 5, wherein the contact is an incoming call (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 13, referring to figures 1 and 4-5, Shaio teaches the method of Claim 5, wherein the contact is an outbound call (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 14, referring to figures 1 and 4-5, Shaio teaches the computer-readable medium having computer-executable instructions for performing the steps recited in Claim 5 (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 15, referring to figures 1 and 4-5, Shaio teaches the method of Claim 1, further comprising the step of determining a rate of contacts serviced by the contact center, and wherein the representing step comprises representing the performance data of each agent in the group of agents with a quality metric and a handling time metric, and wherein the comparing step further comprises weighing the quality metric more heavily than the handling time metric if contact rate is essentially below a threshold and weighing the handling time metric more heavily than the quality metric if contact rate is essentially above the threshold (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 16, referring to figures 1 and 4-5, Shaio teaches the method of Claim 1, further comprising the step of determining revenue of the contact center, and wherein the representing step comprises representing the performance data of each agent in the group of agents with a first metric and a second metric, and wherein the comparing step further comprises weighing the first metric more heavily than the second metric if revenue is essentially below a threshold and weighing the second metric more heavily than the first metric if revenue is essentially above the threshold (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 17, referring to figures 1 and 4-5, Shaio teaches the method of Claim I, wherein the representing step comprises representing the performance data of each agent in the group of agents on a performance scale that comprises exactly one performance indicator (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 18, referring to figures 1 and 4-5, Shaio teaches the method of Claim I, further comprising the step of determining a state of the contact center, and wherein the representing step comprises representing the performance data of each agent in the group of agents on a performance scale that comprises exactly one performance indicator, and wherein the comparing step further comprises choosing the performance indicator on the basis of the contact center state (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 19, referring to figures 1 and 4-5, Shaio teaches a method to manage operational effectiveness in a contact center comprising:

receiving an indicator value representing agent performance for at least one agent in the contact center (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8);

receiving a value indicating a contact center state (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8);

generating an index that is a function of the contact center state value and the indicator value (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8); and

adjusting an operational function in the contact center on the basis of the index

Regarding claim 20, referring to figures 1 and 4-5, Shaio teaches the method of Claim 19, wherein the adjusting step comprises selecting a resource to deploy in the contact center on the basis of the index (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 21, referring to figures 1 and 4-5, Shaio teaches the method of Claim 19, wherein the adjusting step comprises selecting an agent to service a contact on the basis of the agent's index (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 22, referring to figures 1 and 4-5, Shaio teaches the method of Claim 19, wherein the step of receiving an indicator value comprises receiving a first indicator value and a second indicator value, and wherein the index is a function of the contact center state, the first indicator value, and the second indicator value (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 23, referring to figures 1 and 4-5, Shaio teaches the method of Claim 19, wherein the index further ranks each agent in the group, and wherein the step of receiving an indicator value comprises receiving a first indicator value and a second indicator value, and wherein the index is a function of the contact center state, the first indicator value, and the second indicator value (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 24, referring to figures 1 and 4-5, Shaio teaches the method of Claim 22, wherein the contact center state comprises a characterization of the center's rate of servicing contacts; the first indicator represents time-based performance of the at least one agent; and the function is operative to weigh the first indicator more heavily when the contact center state is above a threshold than when the contact center state is below the threshold (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 25, referring to figures 1 and 4-5, Shaio teaches the method of Claim 22, wherein the determining step comprises forecasting the contact center state using historical data (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 26, referring to figures 1 and 4-5, Shaio teaches a computer-readable medium having computer-executable instructions for performing the steps recited in Claim 19 (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 27, referring to figures 1 and 4-5, Shaio teaches a system for

selecting a first agent over a second agent to perform a task in a contact center, the

system comprising:

a first terminal operative to interface with the first agent and a second terminal

operative to interface with the second agent (see figures 1 and 4-5; and col. 2, lns 3-23;

and col. 10, ln 15-col. 11, ln 8);

an agent performance monitor in communication with the first terminal

and the second terminal, the performance monitor operative to determine a first

indicator of agent performance and a second indicator of agent performance for the

each of the first agent and the second agent (see figures 1 and 4-5; and col. 2, lns 3-23;

and col. 10, ln 15-col. 11, ln 8);

a state monitor operative to determine the state of the contact center (see figures

1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8); and

a ranking system in communication with the agent performance monitor and the

call state monitor, the ranking system operative to:

compute a tirst index value for the first agent using the state and the first

indicator of agent performance (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10,

ln 15-col. 11, ln 8);

compute a second index value for the second agent using the state and the

second indicator of agent performance (see figures 1 and 4-5; and col. 2, lns 3-23; and

col. 10, ln 15-col. 11, ln 8); and

select the first agent to perform the task because of first index value is one of

higher or lower than the second index value (see figures 1 and 4-5; and col. 2, lns 3-23;

and col. 10, ln 15-col. 11, ln 8).

Regarding claim 28, referring to figures 1 and 4-5, Shaio teaches the system of

Claim 27, wherein the task comprises receiving an incoming call, and the system further

comprises a call distribution component in communication with the ranking system,

wherein the call distribution component is operative to route the incoming call to the first

agent (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 29, referring to figures 1 and 4-5, Shaio teaches the system of

Claim 27, wherein the state comprises call volume and the function is further operative

to increase the index value's dependence on the first indicator in response to increased

call volume (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 30, referring to figures 1 and 4-5, Shaio teaches the system of

Claim 27, wherein the index is also a function of management input (see figures 1 and

4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 31, referring to figures 1 and 4-5, Shaio teaches the system of

Claim 27, wherein the state comprises sales and the function is further operative to

increase the index value's dependence on the first indicator in response to increased

sales (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 32, referring to figures 1 and 4-5, Shaio teaches the system

Claim wherein the state comprises management directive and the function is further

operative to increase the index value's dependence on the first indicator in response to

the management directive (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 33, referring to figures 1 and 4-5, Shaio teaches the system of Claim 27, wherein the state comprises compliance statistics and the function is further operative to increase the index value's dependence on the first indicator in response to the compliance statistics (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 34, referring to figures 1 and 4-5, Shaio teaches a method to select an agent from a group of agents to service a contact at a contact center comprising:

generating a performance indicator for each agent in the group of agents (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8); and

ranking each agent in the group of agents on the basis of the performance indicator (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8); and

selecting a preferred agent to service the contact on the basis of the preferred agent's rank (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 35, referring to figures 1 and 4-5, Shaio teaches the method of Claim 34, further comprising the step of determining a state of the contact center, wherein the ranking step comprises weighing the performance indicator for each agent in the group of agents according to the contact center state and ranking each agent in the group of agents on the basis of the weighted performance indicator (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 36, referring to figures 1 and 4-5, Shaio teaches a method to select an agent from a group of agents to service a contact at a contact center comprising:

generating a performance indicator for each agent in the group of agents (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8); and

computing an index for each agent in the group of agents using the performance indicator as a computational input, wherein the indices predict each agent's relative contribution to the center's operational effectiveness by servicing the contact (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8); and

selecting a preferred agent to service the contact on the basis of the indices (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 37, referring to figures 1 and 4-5, Shaio teaches the method of Claim 36, wherein the preferred agent has the highest index in the group of agents (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Regarding claim 38, referring to figures 1 and 4-5, Shaio teaches the method of Claim 36, wherein the preferred agent is predicted to contribute more to the center's operational effectiveness than each of the other agents in the group (see figures 1 and 4-5; and col. 2, lns 3-23; and col. 10, ln 15-col. 11, ln 8).

Conclusion

4.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art in general:

U.S. Pat. No. 5,239,460

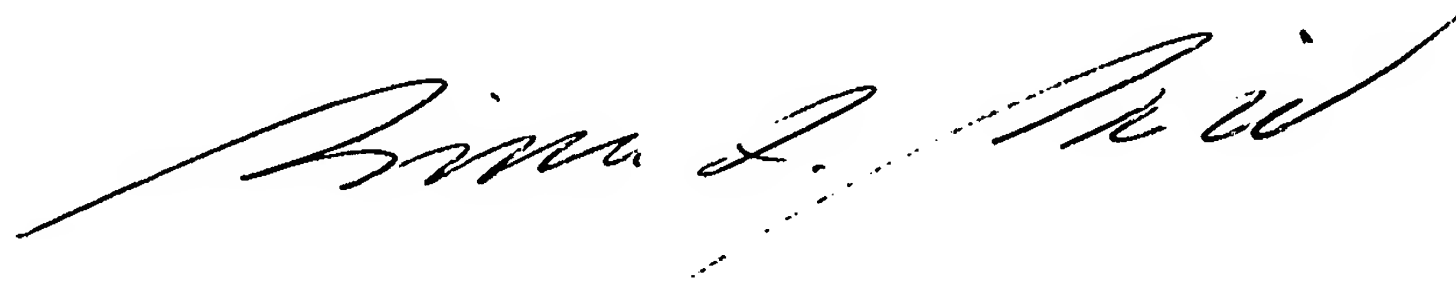U.S. Pat. No. 6,278,777

U.S. Pat. No. 6,690,788

U.S. Pat. No. 6,865,267

5.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bing Bui whose telephone number is (571) 272-7482. The examiner can normally be reached on Monday through Thursday from 7:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar, can be reached on (571) 272-7488. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300 and for formal communications intended for entry (please label the response ▢EXPEDITED PROCEDURE▢) or for informal or draft communications not intended for entry (please label the response "PROPOSED" or "DRAFT").

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

18 Sep 2005

BING Q. BUI
PRIMARY EXAMINER